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R. E. WHITSON
EMERGENCY APPARATUS

2,234,360

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Fig. 1.

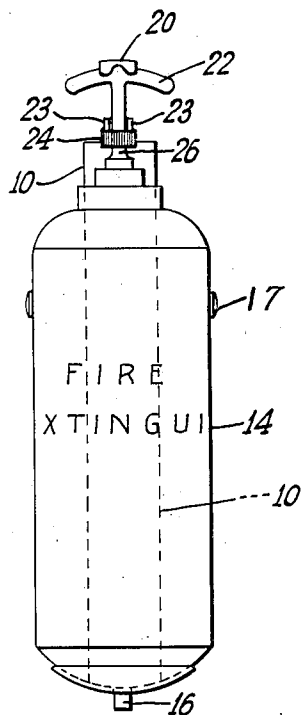


Fig. 2.

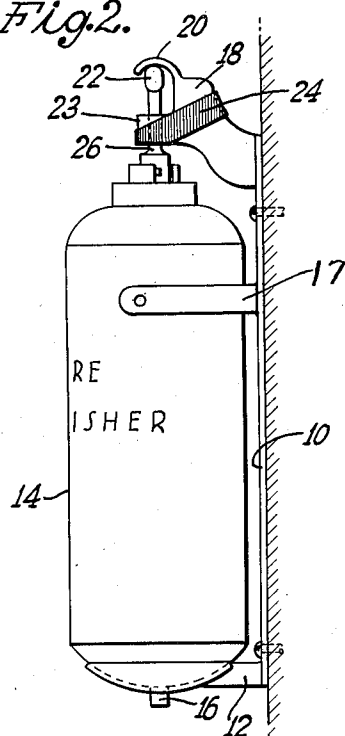


Fig. 3.

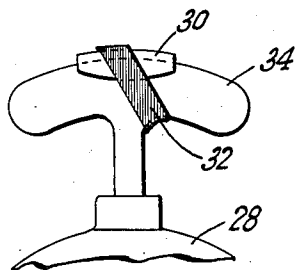


Fig. 4.

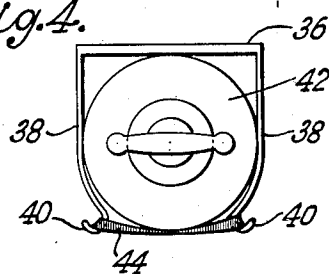


Fig. 5.

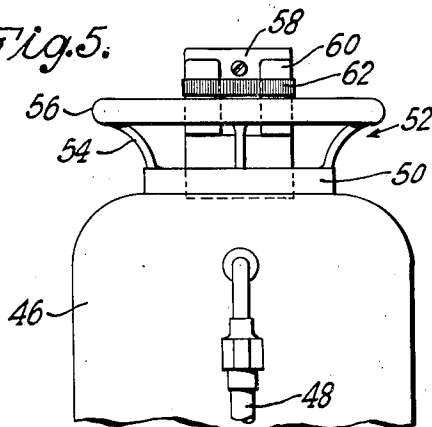
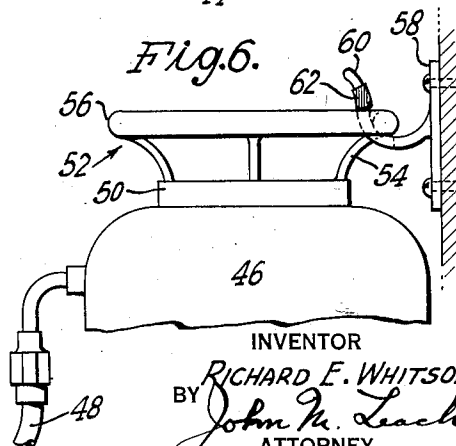


Fig. 6.



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EMERGENCY APPARATUS

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1 Claim. (Cl. 248—311)

The present invention relates to emergency apparatus and equipment. More particularly, it relates to fire extinguishing apparatus including fire extinguishers and their supports.

Fire extinguishers of many types require charging periodically with fluids in order to maintain them in condition for immediate use when emergency conditions arise. Such charging requires removing each extinguisher from its support and examining it to see if it contains the proper amount of fluid and replacing the fluid in the extinguisher if the requisite amount is not present. Between such charging periods the extinguishers may be used partly or entirely and returned to their supports without being recharged. This creates a dangerous condition since the extinguishers so used will not be in condition to be used again in the event a fire should occur before the usual inspection and charging operation is scheduled. In order to avoid these conditions it has been customary to inspect all fire extinguishers at much more frequent periods than would be necessary due to gradual loss of fluids from the extinguishers in order to avoid the possibility of extinguishers being used or tampered with maliciously and being replaced on their supports without being recharged. This has resulted in much unnecessary work in removing and inspecting extinguishers which are in good working condition.

It is an object of the present invention to provide emergency equipment which obviates the unnecessary examinations and inspections mentioned heretofore.

It is a further object of the present invention to provide tamper-proof emergency equipment.

It is another object of the present invention to provide fire extinguishers having indicating means which show at a glance if the extinguisher has been removed from the support.

Other objects and advantages, if not particularly pointed out, will be apparent to those skilled in the art as the detailed description of the invention proceeds.

The present invention, in general, comprises a fire extinguisher support having means for supporting and removably gripping a fire extinguisher, a fire extinguisher carried by the support, and an endless band of shrinkable material shrunk about the gripping means and embracing a portion of the fire extinguisher so as to make it impossible to remove the extinguisher without breaking the band.

The invention accordingly comprises the features of construction, combinations of elements, and arrangement of parts, which will be exemplified in the construction hereinafter set forth and the scope of the invention will be indicated in the claim.

For a more detailed description of the inven-

tion, reference should be had to the accompanying drawing wherein

Fig. 1 is a front elevational view of emergency apparatus constructed in accordance with one embodiment of the present invention;

Fig. 2 is a side elevational view of the emergency apparatus illustrated in Fig. 1;

Fig. 3 is a fragmentary view of emergency apparatus constructed in accordance with a modified form of the invention;

Fig. 4 is a top plan view of emergency apparatus constructed in accordance with another modified form of the invention;

Fig. 5 is a front elevational fragmentary view of emergency apparatus constructed in accordance with a fourth embodiment of the invention, and

Fig. 6 is a side elevational fragmentary view of the emergency apparatus illustrated in Fig. 5.

Referring to Figs. 1 and 2, the emergency apparatus comprises a supporting bracket formed by a plate 10 adapted to be attached to wall, post, pillar or the like by screws, nails or other suitable means and carrying near its lower extremity a supporting shelf 12 suitably shaped to receive the lower end of a fire extinguisher 14 and thereby support the extinguisher. The nozzle 16 of the extinguisher projects through a suitable opening provided on the shelf 12. Spring arms 17 project from the bracket and embrace the extinguisher on opposite sides to aid in maintaining the extinguisher in position on the shelf 12. An arm 18 projects upwardly from the bracket 10 and grips the fire extinguisher 14 by means of a spring clip 20 carried at its outer end and shaped so as to snap over and snugly fit the handle 22 of the fire extinguisher and thereby hold the fire extinguisher in position until the extinguisher is forcibly removed by pulling outwardly on the extinguisher to disengage the clip 20 from the handle. The arm 18 also has furcations 23 extending forwardly therefrom to engage opposite sides of the neck 26 of the extinguisher to prevent it from moving sidewise.

An endless band of shrinkable material 24 is shrunk about the arm 18, the ends of the members 23 and the neck 26 of the extinguisher to thereby prevent removal of the extinguisher without breaking the band 24.

The fire extinguisher 28 illustrated in Fig. 3 is substantially the same as the fire extinguisher 14 of Fig. 1 and is retained in position on a similar supporting bracket to that illustrated in Fig. 1 by the spring clip 30. An endless band 32 formed of shrinkable material is shrunk over the clip 30 and about the handle 34 of the fire extinguisher 28 to prevent removal of the fire extinguisher from its supporting bracket without breaking the band 32.

The supporting bracket 36 illustrated in Fig. 4

is adapted for attachment to a wall, pillar, post or the like by the use of screws, nails or any other attachment instrumentalities and is provided with spring arms 38 which extend forwardly and terminate in hook-like extremities 40. A fire extinguisher 42 is gripped by the spring arm 38 and thereby held in position on the bracket 36.

An endless band of shrinkable material 44 is shrunk over the hook-like extremities 40 and thereby pulls the arms 38 tightly against the sides of the fire extinguisher 42 and also embraces the fire extinguisher at the front thereof so as to prevent the removal of the fire extinguisher 42 without breaking the band 44.

The fire extinguisher 46 illustrated in Figs. 5 and 6 is of a different type from that previously disclosed and is of the type which is removed from its support and inverted during usage, the contents thereof being expelled through a hose 48 onto the fire. The extinguisher is provided with a removable top 50 which acts as a closure and carries a handle 52 extending upwardly therefrom in the form of arms 54 and a top ring 56. The extinguisher is supported by means of a supporting bracket 58 adapted to be attached to a wall or the like by means of screws or nails and having a bifurcated hook 60. The handle 52 of the extinguisher is placed over the hook 60 with one of the upwardly extending arms 54 received within the furcations of the hook. An endless band 62 formed of shrinkable material is shrunk over the furcations of the hook 60 and thereby prevents removal of the fire extinguisher for use without breaking the band 62.

The bands of shrinkable material employed in the practice of the present invention may be formed of any material which shrinks appreciably upon drying and which has sufficient tensile strength to withstand the shrinking forces generated during the drying operation. Such shrinkable materials are non-fibrous organic film-forming materials, such for example, as cellulosic materials such as cellulose hydrate regenerated from viscose, cuprammonium solutions of cellulose, and solutions of cellulose in organic solvents; cellulose esters, such as cellulose acetate, cellulose nitrate and the like; cellulose ethers, such as alkyl, hydroxy-alkyl and carboxy-alkyl cellulose ethers which are soluble in aqueous alkali or in organic solvents, and the like; as well as artificial resins, such as urea-aldehyde resin, co-polymers of vinyl acetate and vinyl chloride, condensation products of methylmethacrylate and other methacrylic or acrylic acid derivatives; casein, gelatin, glue, and the like, as well as other film-forming substances which shrink upon drying. The bands may be formed in any well known manner such, for example, as by coating a mandrel or extruding the band material from a suitable die into a coagulating bath, passing the tubing so formed from the coagulating bath to additional treatments, such as washing, desulphurizing, regeneration and the like, and finally cutting the finished tubing into the desired width.

The bands may be advantageously formed from cellulose hydrate regenerated from viscose or formed by denitrating nitrocellulose either partially or substantially completely. Both of these materials have been found to possess unusual stretching, shrinking and tensile strength properties which render them admirably suit-

able for usage in the practice of the present invention.

The bands may be suitably colored as by applying pigments and/or dyestuffs to the solution of film-forming material from which the bands are made, or, may be dyed or coated with materials containing pigments and/or dyes subsequent to their formation.

By making the bands of a bright color, it is possible for an inspector to determine at a glance without even touching the extinguisher whether or not it has been removed from its support since the last inspection period and thereby makes it unnecessary to remove extinguishers from their supports except at infrequent filling periods which may include several inspection periods. The rapidity with which such inspections can be made renders it possible to inspect daily all of the fire extinguishers in a large building or factory without requiring more than a few minutes time on the part of the inspector. If desired, the bands may be printed with any suitable indicia and/or configurations, for example, with the date, month and year on which they are applied to the extinguishers so as to make it possible for an inspector to determine at a glance how long an extinguisher has been in position on its support since having been changed.

The bands may be manufactured and transported in wet and expanded condition to the point of use or they may be dried and permitted to shrink prior to transportation and soaked in water to swell them sufficiently for them to pass over the bracket gripping means and some part of the fire extinguisher at the point of use. In either event, the bands quickly shrink into position on the extinguishers after application, for example, a regenerated cellulose band in the wet gel state will shrink tightly into position in the course of a half hour.

It has been found that emergency apparatus constructed in accordance with the present invention discourages tampering and makes it impossible for the apparatus to be tampered with without the tampering being made evident by the breakage of the band. This greatly enhances the value of emergency apparatus such as fire extinguishers since it insures that the extinguishers will always be in condition for immediate use when a need for the same arises.

Since certain changes may be made in the above composition of matter and different embodiments of the invention could be made without departing from its scope, it is intended that all matter contained in the above description shall be interpreted as illustrative and not in a limiting sense.

I claim:

Emergency apparatus comprising in combination a fire extinguisher and a supporting bracket therefor including thereon means for removably engaging and supporting the fire extinguisher, said means having a portion thereof shaped so as to receive a band-like element thereover in position relative to the extinguisher so as to be broken upon removal of the extinguisher from the supporting bracket and so as to prevent normal removal of the extinguisher from the bracket without breaking the band, and an endless band formed of material which shrinks upon drying shrunk about the said portion of said means in such position.

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